



**DIAMOND**  
AUDIO TECHNOLOGIES, LLC

**HEX**<sup>™</sup>

**SHALLOW MOUNT SUBWOOFER  
INSTALLATION MANUAL**

S104 | S124

Dear Valued Customer,

Congratulations on your purchase of a Diamond Audio HEX™ shallow mount subwoofer. Your new HEX™ subwoofer is the result of endless hours of trial and error. We tasked our engineers to develop a subwoofer that would fit almost anywhere yet still provide the same performance you have come to expect from a Diamond Audio subwoofer. By using a high-energy neodymium motor positioned in front of the cone we eliminate the two biggest obstacles, depth and excursion.

Conventional subwoofers use a large ferrite motor mounted to the back of the basket. This makes shallow mounting extremely difficult. By using a neodymium motor, which is capable of creating the same magnetic force as a conventional ferrite motor, but at a fraction of the size, and mounting it in front of the cone, depth is no longer an issue. Since we are not *squashing* the entire subwoofer in an effort to improve the mounting depth, we don't sacrifice the geometry of the driver and therefore maintain the same type of excursion as a traditional subwoofer. Mission accomplished!

Please keep in mind that prolonged exposure to sound pressure levels in excess of 100 dB can cause permanent hearing loss. This high performance speaker system can exceed that level, so please exercise restraint in its operation in order to preserve your ability to enjoy its fidelity in the future.

Because of their installation possibilities, please consider having your new subwoofer installed by an authorized Diamond Audio dealer. This will ensure a clean and efficient installation.

At Diamond Audio, we strive to bring honest value and excellent quality to all of the products we build. By your purchase of this product, you have joined the growing family of discerning listeners who demand only the best. Welcome!

The Diamond Audio Team

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## **HEX™ SHALLOW MOUNT SUBWOOFER FEATURES**

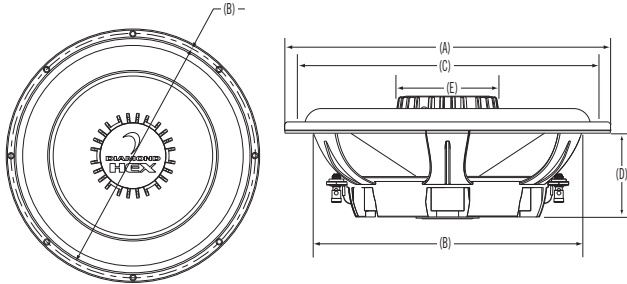
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<b>Carbon Fiber Cone</b>	<b>3" Voice Coil (S124)</b>
<b>Neodymium Motor</b>	<b>2" Voice Coil (S104)</b>
<b>Butyl Rubber Surround</b>	<b>3.1" mounting Depth (S124)</b>
<b>Cast Aluminum Basket</b>	<b>2.7" mounting Depth (S104)</b>

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## PHYSICAL DIMENSIONS

Dimension (in./mm)	S104	S124
Total Diameter (A)	10.5 in. (266.5 mm)	12.4 in. (315 mm)
Mounting Diameter (B)	9.3 in. (236.5 mm)	11.2 in. (284 mm)
Screw Hole Diameter (C)	10.1 in. (257.5 mm)	11.9 in. (300 mm)
Mounting Depth (D)	2.7 in. (70 mm)	3.1 in. (82 mm)
Magnet Diameter (E)	3.5 in. (90 mm)	4.4 in. (112 mm)
Displacement	0.03 ft <sup>3</sup> (0.9 liter)	0.05 ft <sup>3</sup> (1.4 liter)



## THIELE/SMALL PARAMETERS

Parameter (unit)	S104	S124
SPL (dB)	88.3	88.4
Re ( $\Omega$ ) [series]	4.6	5.1
Qms	4.818	3.586
Qes	0.539	0.319
Qts	0.485	0.293
Fs (Hz)	37.712	26.995
Vas (L)	43.694	73.418
Cms (mm/N)	282.454	252.631
Mms (g)	63.058	137.586
Sd (m <sup>2</sup> )	33.006	45.239
BL (T*M)	9.562	15.534
Xmax (mm)	5.7	8.8
Pwr (W) NOM/MAX	150/300	250/500

## ENCLOSURE

The enclosures specified below are offered as a suggestion only. Assistance from an authorized Diamond Audio retailer is recommended for designing the correct system for your vehicle. All volumes below are shown as gross internal volumes, driver and vent displacement has been accounted for. The use of a 30Hz sub-sonic filter is recommended on most vented enclosures.

Sealed	S104	S124
Vb (ft <sup>3</sup> )	0.6	1.0
F3 (Hz)/QTC	54/0.87	57/0.53
Pe (W)	150	250
Vented		
Vb (ft <sup>3</sup> )	1.0	1.5
Fb/F3 (Hz)	39/30	34/27
Port (in.) [dia. x length]	2.5 x 7	3 x 8.75
Pe (W)	100	200

## LIMITED SPEAKER WARRANTY STATEMENT

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Diamond Audio Technologies, LLC (DAT) warrants this product to be free from defects in material and workmanship for a period of one (1) year from the original date of purchase provided it was purchased from an authorized DAT retailer within the United States. However, if this product was installed by the authorized DAT retailer, the warranty period will be extended to three (3) years.

THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER OF THIS PRODUCT IN ITS ORIGINAL INSTALLATION. Original purchaser must reside in the United States and be able to provide proof of purchase and installation with the sales receipt from the authorized DAT retailer that sold and installed the product.

Should a manufacturing defect occur during above said warranty period, DAT will replace or repair the defective product with a product of the same or equivalent value and performance.

Damage or failure caused by any of the following is not covered under this warranty policy: negligence, improper use, abuse, product modification, unauthorized repair attempts, accident, acts of God, misrepresentations by DAT retailers, and improper/inadequate packaging during return shipping.

Warranty is void if serial numbers have been removed, altered or defaced.

## HOW TO OBTAIN WARRANTY SERVICE

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In the event a DAT product should require service, you should visit the authorized DAT retailer you purchased the product from and they can expedite your claim. All claims must fall into the guidelines listed above and be accompanied by a copy of the original sales and installation receipt from that authorized DAT retailer.

Product returned for warranty service must be freight-prepaid, properly packaged and clearly marked with the Return Authorization (RA) number issued by DAT. Any product returned to DAT that is improperly packaged, does not have a RA number clearly marked on the package, or never received a RA number may be refused upon delivery. DAT does not assume responsibility for lost or misdirected product.

Repair or replacement under this warranty is the exclusive remedy of the consumer. DAT shall not be liable for any incidental or consequential damages for breach of any expressed or implied warranty on this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state.

Customers outside the United States should contact their local sales office to obtain information on pricing, exchange unit availability, instructions, service and warranty/non-warranty replacement or repair.



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